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Committee on the Status of Endangered Wildlife in Canada

Comité sur le statut des espèces menacées de disparition au Canada

Ottawa, Ont. K1A 0H3
(819) 997-4991

STATUS REPORT ON THE CANYON WREN

CATHERPES MEXICANUS

IN CANADA

BY

RICHARD J. CANNINGS

STATUS ASSIGNED IN 1992

NO DESIGNATION REQUIRED

REASON: PERIPHERAL SPECIES FACING LITTLE OR NO THREAT, BUT POPULATION SIZE INFLUENCED STRONGLY BY WEATHER.

OCCURRENCE: BRITISH COLUMBIA

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Committee on the Status of Endangered Wildlife in Canada

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JUNE 1990

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EXTINCT SPECIES: Any species of fauna or flora formerly indigenous to Canada but no longer known to exist anywhere.

STATUS REPORT ON THE CANYON WREN

CATHERPES MEXICANUS

IN CANADA

BY

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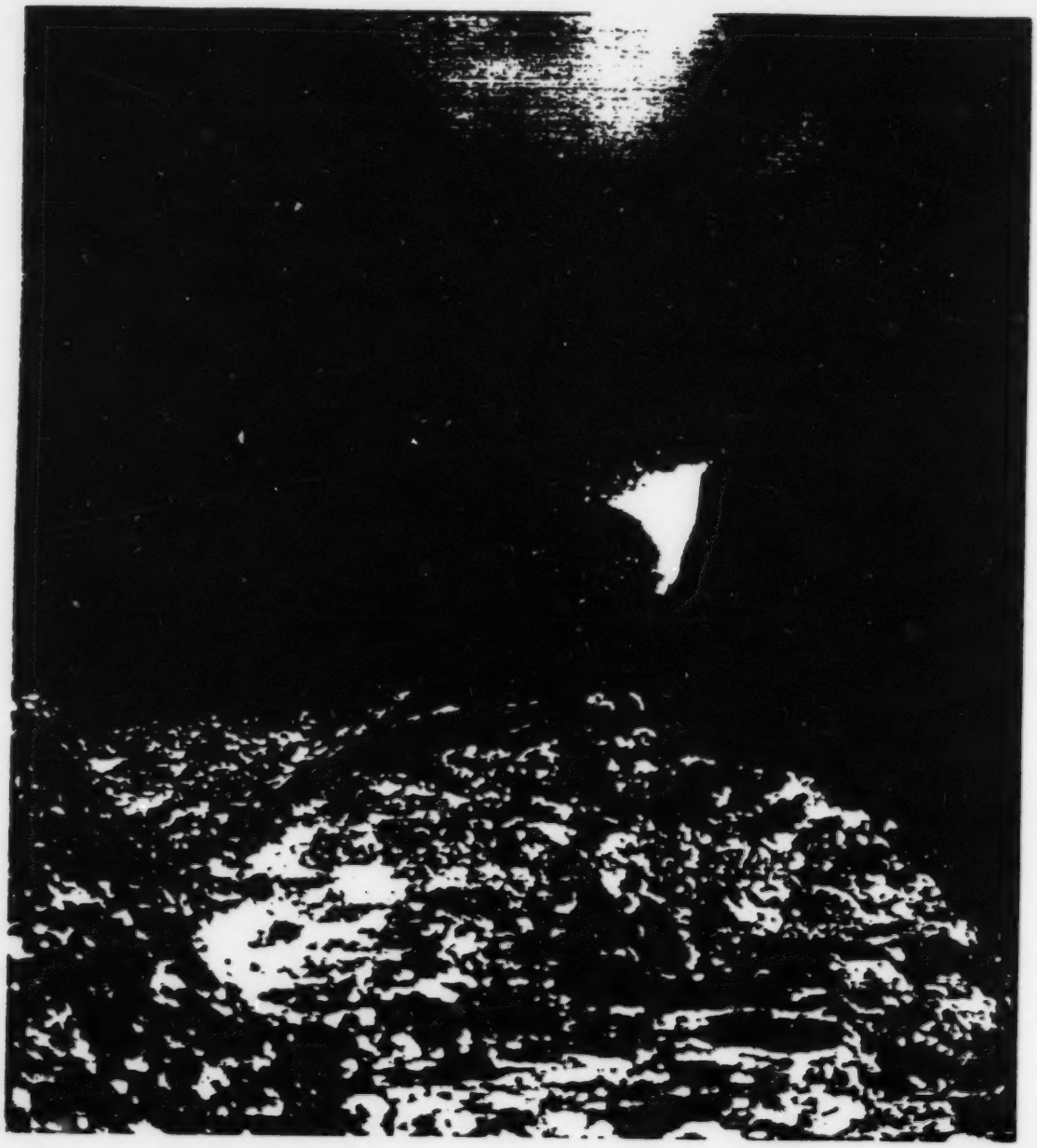


Frontispiece. A male Canyon Wren perched on a rock at Vaseux Lake (S. R. Cannings photo).

"As a rule they creep about the rugged cliff-ledges like creepers on tree trunks utterly indifferent to the inclination or overhang of their support. Every once in a while they disappear within some of the crevices and remain there for what seems to the watcher in the hot sun below an interminable time. On emerging they alternately creep about feeding or sit with the head and bill just projecting beyond some slight commanding ledge and ing again and again. Their song is strikingly beautiful."

Taverner 1922

A. ABSTRACT

The Canyon Wren is found in Canada only in extreme south central British Columbia. The maximum spring population is approximately 100 pairs. Canyon Wrens require rock cliffs with deep crevices or very large diameter talus for foraging and nesting. They are non-migratory and can suffer catastrophic population declines during very severe winters, occasionally being temporarily extirpated from Canada. Habitat protection is adequate in Canada, but populations are low enough that the Canyon Wren should be considered Vulnerable.

B. DISTRIBUTION

B. 1. World (Figure 1)

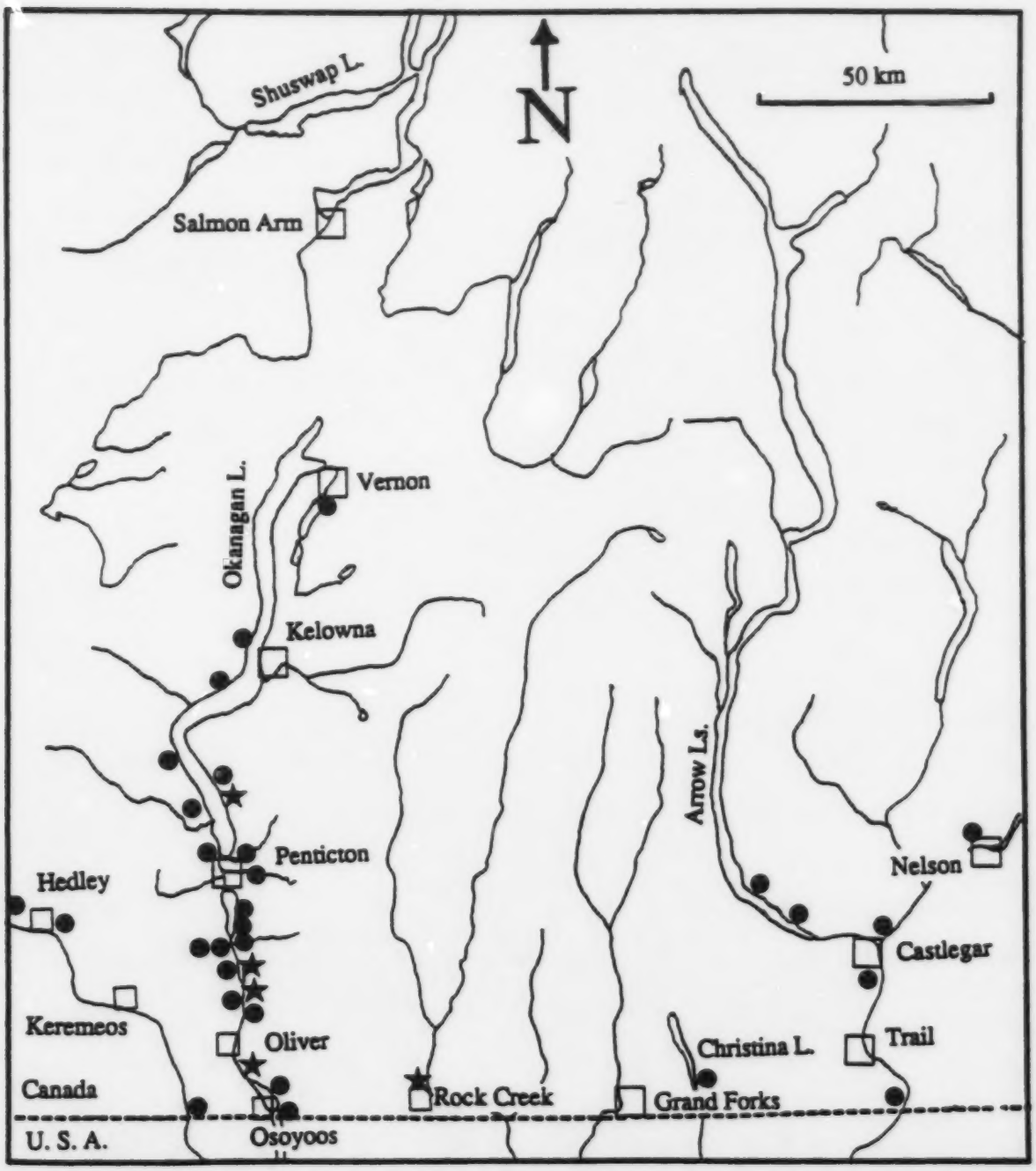
The Canyon Wren is a resident from southern British Columbia, Idaho and Montana south in the western cordillera to the Mexican states of Baja California Sur and Chiapas. Three subspecies have been described: *Catherpes mexicanus mexicanus* throughout most of the Mexican range, *C. m. albifrons* in the Sierra Madre Orientale in northeast Mexico, and *C. m. conspersus* throughout the northern half of the species' range, including Baja California, Sonora and northern Chihuahua (Paynter and Vaurie 1960).

B. 2. Canada (Figure 2)

The Canyon Wren is restricted within Canada to the extreme southern Interior of British Columbia. The heart of that range is the Okanagan Valley south of Penticton; 298 of the 330 provincial records of Canyon Wrens (90.3%) have come from there (British Columbia Wildlife Record Scheme--BCWRS). Since it is an essentially nonmigratory bird, the range of the Canyon Wren contracts and expands with the occurrence of harsh winters followed by a series of mild years (Cannings et al. 1987). At its greatest extent the Canadian breeding range of the Canyon Wren includes the Similkameen Valley north and west to Hedley, the Okanagan Valley north to Summerland and Naramata, the Boundary District from Rock Creek to Christina Lake, and the

Figure 1. Range of the Canyon Wren.

Figure 2. Map of central southern British Columbia showing the Canadian distribution of the Canyon Wren. Dots indicate sight records, stars indicate breeding records.



Columbia Valley from Waneta north to the vicinity of Castlegar (Kinnaird, Brilliant, Syringa Creek, Deer Park; British Columbia Nest Record Scheme--BCNRS, BCWRS). There is also one May record of a singing bird from Pulpit Rock opposite Nelson (BCWRS). Only 13 records in the BCWRS are from east of Grand Forks, however, and no breeding records have been reported east of Rock Creek (BCNRS).

In the fall and early winter, Canyon Wrens, presumably young birds, disperse into new territories and at this time individuals have been sighted north to Vernon. There is only one spring record from the Vernon area.

C. PROTECTION

As are most other North American birds, the Canyon Wren and its nests and eggs are protected in Canada and the United States from hunting and collecting under the Federal Migratory Birds Convention of 1916. It is also protected in British Columbia under the Wildlife Act of 1982.

D. POPULATION SIZE AND TREND

Preston (1990) counted 51 Canyon Wrens at 40 sites in the south Okanagan Valley from 15 May to 11 July 1990. At least 43 were singing males. No birds were located in searches of Wild Horse Canyon (Okanagan Mountain Provincial Park), Gallagher Canyon (Kelowna), and Cosens Bay, Kalamalka Lake. On 7 June 1966, C. J. Guiguet counted 20 to 25 Canyon Wrens along the east side of Osoyoos Lake, but of nine birds he collected only one was an adult.

In optimal habitat in the south Okanagan, territories seem to be arranged linearly along cliff faces with territory centres about 300 m apart (Preston 1990, Jaroslav Picman pers. comm.). Using an estimate of three pairs per kilometre of suitable cliff, and judging from the amount of available habitat not searched by Preston (e.g. the east side of Osoyoos Lake, Inkaneep Creek, Manuel's Canyon, Vaseux Creek, Shuttleworth Canyon), the Okanagan population is probably at least twice his total. During peak population periods, the spring population of Canyon Wrens in the Okanagan Valley is almost certainly close to or more than 100 pairs; the overall provincial population would

also include at least another five pairs in the Similkameen Valley and perhaps 10 to 15 in the Castlegar area (W. J. Merilees pers. comm.).

After severe winters, the population drops dramatically. In December 1968, Canyon Wrens were seen as far north as Lambly Creek, northwest of Kelowna, but record low temperatures in January 1969 halted and totally reversed this northward advance, as Cannings et al. (1987:288) relate:

> ...At Oliver, the centre of the Canyon Wren's Canadian range, the mean minimum temperature was -14°C compared to the recent 18-year average of -6.7°C...A low of -28.6°C was recorded in this month. Most, if not all, of the Canyons Wrens in the [Okanagan Valley] did not survive this unusual weather...not one Canyon Wren was reported in 1969 despite many attempts to locate them. Since then, they have become re-established in the Valley's southern reaches and are now as numerous as they were before 1969.

The Canadian Canyon Wren population, then, probably fluctuates between zero (after very severe winters--once every 50 years or so?) and 300 or more birds in the late summer or fall after a series of milder winters.

E. HABITAT

Canyon Wrens are birds true to their name, found in towering rock canyons and cliffs. They seem to require deep crevices or even small caves in which to feed and nest. Large angular boulders, such as those found at the base of the Vaseux Lake cliffs, are much preferred, since they provide an abundance of nooks and crannies. This habitat is well-described by Gabrielson and Jewett (1940) as "tumbled talus piles of huge blocks of rock." Larrison (1981:223) states that in the Pacific Northwest states the Canyon Wren prefers

> partly-shaded walls of canyons and outcroppings, as well as rock slides where the proper crannies for nesting occur...Favours cliffs bordering rivers in the arid interior.

In fall and early winter, birds are often found in suboptimal situations where cliff faces are smaller and the basal talus is not large enough to provide cover and feeding possibilities.

Nests are built in small caves or rock crevices; of the two British Columbia nests described, one was made of grass and lichens and the second of coarse plant material with a base of twigs (Cannings *et al*. 1987). Old nests are apparently maintained and reused (Ehrlich *et al*. 1988).

Optimal habitat for Canyon Wrens is common in the Okanagan Valley from Vaseux Lake south and becomes rarer farther north. Suitable habitat for the species is protected in the Vaseux Bighorn National Wildlife Area and lands managed by the British Columbia Ministry of Environment around Vaseux Lake, and Ecological Reserve #100 (Haynes Lease) at the north end of Osoyoos Lake. Okanagan Mountain Provincial Park may harbour breeding Canyon Wrens, but it is somewhat north of the species' traditional breeding range and Preston (1990) felt that the cliffs there lacked the deep crevices and large-diameter basal talus essential for Canyon Wren habitat.

F. GENERAL BIOLOGY

F. 1. REPRODUCTIVE CAPABILITY

Local data on nesting dates and success are meagre, but the first eggs are laid in late April or in May. Two broods are often attempted; given a total nesting period of about four to five weeks, second broods probably start in late June or early July (Cannings 1987). Clutch size varies from four to seven eggs, with five or six more usual (Ehrlich *et al*. 1988); the only Canadian clutch size reported was of seven eggs (Cannings *et al*. 1987).

Two nests with young found at Vaseux Lake and Naramata contained four young each (Cannings *et al*. 1987); two broods of fledglings consisted of two and three young respectively (Preston 1990).

F. 2. SPECIES MOVEMENT

Canyon Wrens are essential nonmigratory. The only noticeable movement is the aforementioned dispersal of apparently young birds into outlying habitat in fall and early winter.

F. 3. Behaviour/Adaptability

Canyon Wrens seem to be quite tolerant of what little human disturbance occurs in their rugged environment. They regularly forage at feeding stations at homes in the Vaseux Lake area (F. C. MacNaughton, pers. comm.). In the southwestern United States, Canyon Wrens have proven to be somewhat adaptable as to breeding habitat, having nested in abandoned buildings there (Ehrlich 1988).

G. LIMITING FACTORS

Canyon Wren populations have two stringent restraints in their Canadian range--the strict habitat requirements of large cliffs with deep crevices, and the frequency of severe winters. The latter factor periodically reduces the population to essentially zero while the former factor undoubtedly slows the spread of Canyon Wrens in periods of milder winters.

Another possible threat to the Canyon Wrens of the south Okanagan is the recent increase in popularity of rock climbing on the magnificent cliffs in the Vaseux Lake area. This activity should be closely monitored to assess the extent of disturbance caused by climbers and/or the habitat degradation resulting from modern climbing techniques.

There has been concern in the past regarding the effect museum collecting was having on the Canadian population of Canyon Wrens; Ian McTaggart Cowan states in his field notes of 24 June 1936 that

> Parham says Munro has shot all the Canyon Wrens and most of the Yellow-breasted Chats and Bobolinks in the country--everyone very bitter as regards said official...

Collecting pressures now are very minimal, however, and the population seems to have rebounded well from any past decreases.

H. SPECIAL SIGNIFICANCE OF THE SPECIES

The Canyon Wren in on the British Columbia Ministry of Environment's (1989) Red List of species that will be considered for designation for threatened or endangered status. It is a South

Okanagan Critical Areas Program (SOCAP) Priority 2 species (Hlady 1990), meaning most of its British Columbian population is in the south Okanagan. The Canyon Wren is not monitored in Washington State (Washington Department of Wildlife 1988).

The rock cliff and talus habitat of the Canyon Wren is also home to several other species of concern, including the night snake (*Hypsiglena torquata*), western rattlesnake (*Crotalus viridis*), spotted bat (*Euderma maculata*), pallid bat (*Antrozous pallidus*), California bighorn sheep (*Ovis canadensis californiana*), Nuttall's cottontail (*Sylvilagus nuttallii*), Golden Eagle (*Aquila chrysaetos*), Prairie Falcon (*Falco mexicanus*) and White-throated Swift (*Aeronautes saxatilis*).

I. EVALUATION

The Canyon Wren is a locally common species in western North America with narrow habitat requirements--large cliffs in arid or semi-arid areas with mild winters. In Canada these requirements are met only in the south Okanagan Valley of British Columbia and to a lesser extent in the adjacent Similkameen and Columbia valleys. Because of its extremely rugged nature, the physical habitat of the Canyon Wren is relatively safe from development pressures, and several of the most important sites in British Columbia are adequately protected. However, those sites are confined to a so small geographic area that the Canyon Wren should be considered Vulnerable in Canada.

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